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(a) Professional Preparation

University of Wisconsin, Madison, WI	Atmospheric Sciences, Ph.D., 2003
Thesis: <i>Microphysical Properties of Single and Mixed-Phase Arctic Clouds Derived From Ground-Based AERI Observations</i>	
Eastern Washington University, Cheney, WA	Mathematics, M.S., 1994
Thesis: <i>Diagnosing Coronary Artery Disease with a Backpropagation Neural Network</i>	
Eastern Washington University, Cheney, WA	Mathematics, B.A., 1992

(b) Appointments

Aug 2010 – current	Physical Scientist, Forecast Research and Development Division, NOAA / National Severe Storms Laboratory
Sep 2010 – current	Fellow, Cooperative Institute for Mesoscale Meteorological Studies (CIMMS), University of Oklahoma
Sep 2010 – current	Affiliate Professor, School of Meteorology, University of Oklahoma
Aug 2009 – Aug 2012	Assistant Professor, Atmospheric and Oceanic Sciences Department, University of Wisconsin – Madison
Aug 2005 – Jul 2009	Research Scientist, Space Science and Engineering Center, University of Wisconsin – Madison
Jun 2007 – Jul 2007	Guest Professor, Institute for Geophysics and Meteorology, University of Cologne
Jul 2003 – Aug 2005	Senior Research Scientist II, Climate Physics Group, Pacific Northwest National Laboratory
Sep 2000 – Jun 2003	Research Assistant, Atmospheric and Oceanic Sciences Department, University of Wisconsin – Madison
Sep 1998 – Aug 2000	Senior Research Scientist I, Climate Physics Group, Pacific Northwest National Laboratory
Jul 1994 – Aug 1998	Research Scientist, Information Sciences and Engineering Group, Pacific Northwest National Laboratory
Sep 1992 – Jun 1994	Instructor, Mathematics Department, Eastern Washington University

(c) Research Interests

- Boundary layer thermodynamic and dynamic structure, diurnal evolution, convection and convection initiation, and other processes
- Passive and active remote sensing of boundary layer thermodynamic and dynamic structure
- Life cycle of clouds with very low liquid water path (< 100 g/m²) and their impact on the radiative energy budget of the surface and atmosphere, especially when influenced by aerosols
- Retrieving microphysical cloud properties, and understanding microphysical processes at work in cloud volumes that contain both liquid and ice hydrometeors
- Longwave (infrared and microwave) radiative transfer model improvements: gas spectroscopy and cloud absorption/scattering properties

(d) Specialized Skills

- Extensive experience with the ground-based Atmospheric Emitted Radiance Interferometer AERI (as former ARM AERI instrument mentor): calibration, basic repairs, deployment for field experiments, quality control, analysis
- Extensive experience with Raman lidar (as former ARM Raman lidar instrument mentor): calibration, alignment of detection optics, quality control, analysis
- Observing facility development and deployment: design, fabrication, deployment, software development (processing and display system) of the Collaborative Lower Atmospheric Mobile Profiling System (CLAMPS). CLAMPS includes three remote sensors (AERI, microwave radiometer, and Doppler lidar) in a 16' mobile trailer
- Retrieval algorithm development: (1) mixed-phase cloud property retrieval algorithm (MIXCRA; Turner JAM 2005), which provided liquid and ice cloud properties from AERI radiances; (2) precipitable water vapor and liquid water path from microwave radiometer observations (MWRRET; Turner et al. TGRS 2007); (3) thermodynamic profiles and cloud properties retrieved from AERI radiance simultaneously (AERIoe; Turner and Löhner 2014); and (4) thermodynamic profiles and liquid water path retrieved from microwave radiometer observations (MWroe; Blumberg et al. 2015). Note that MWRRET is currently run operationally in the ARM Program's Data Management Facility, and the AERIoe is currently being implemented in there
- Radiative transfer model development: infrared absorption and scattering model LBLDIS (Turner et al. JAM 2003); water vapor spectroscopy (Turner et al. TGRS 2009; Turner et al. JAS 2004); cloud absorption and scattering properties (Turner et al. JTECH 2016; Yang et al. 2003)
- Programming languages: IDL (expert), C (expert), unix/linux programming environments (expert), fortran (proficient), c-shell (proficient), matlab (familiar), python (familiar), html (familiar), bash (familiar)

(e) Professional Activities

- Lead Editor, AMS Monograph "*The Atmospheric Radiation Measurement Program: The First 20 Years*"
- Principal Investigator, DOE Atmospheric Radiation Measurement (ARM) Program and Atmospheric System Research (ASR) program, 2005 – present
- Chair, DOE Atmospheric Radiation Measurement (ARM) User Executive Committee, 2014 – present
- Member, ARM Science and Infrastructure Steering Committee (SISC), 2007 – present
- Executive Board Member, University of Oklahoma Cooperative Institute for Meteorological Mesoscale Studies, 2012 – present
- Member, DOE ARM Atmospheric Modeling Advisory Group, 2016 – present
- NSSL / FRDD / CRAFT Team leader, 2013 – present
- Member, American Meteorological Society (AMS), 2003 – present
- Member, American Geophysical Union, 2003 – present
- Organizer and instructor, ARM Summer Training and Science Applications Workshop, 2015
- Instructor, Initial Training for Atmospheric Remote Sensing (ITaRS), 2014
- Co-chair, DOE Office of Biological and Environmental Science (BER) Climate Research Roadmap Committee, 2010
- Chair, DOE Atmospheric Systems Research (ASR) Program Science Plan Committee, 2009
- Chair, ASR Cloud-Aerosol-Precipitation Interactions Working Group, 2010 – 2013
- Chair, ARM Climate Research Facility Science Board, 2009 – 2011
- Associate Editor, AMS Journal of Atmospheric and Oceanic Technology, 2006 – 2011
- Chair, ARM Radiative Processes Working Group, 2007 – 2009
- Member, US Global Change Research Program (USGCRP) Water Cycle Science Steering Group, 2006 – 2009
- Member, NSF Committee for the NCAR Facilities Assessment of Solar Measurements, 2006 – 2007
- Member, International Scientific Steering Committee for the Convective and Orographic Precipitation Study (COPS), 2006 – 2009
- Member, AMS Committee on Laser Atmospheric Studies (CLAS), 2003 – 2006

- Developed a high-spectral-resolution radiative transfer model that includes scattering (LBLDIS), used by at least 25 users in 17 different institutions
- Lecturer, COPS Summer School, Black Forest, Germany, 2007
- Lecturer, International Summer School on Atmospheric and Oceanic Sciences, L'Aquila, Italy, 2007
- ARM Raman Lidar Instrument Mentor, 2003 – 2008
- ARM Atmospheric Emitted Radiance Interferometer (AERI) Instrument Mentor, 2006 – 2010
- Field Campaign Leadership
 - Co-I and Steering Committee Member, Plains Elevated Convection at Night (PECAN), June-July 2015
 - PI, Lower Atmospheric Boundary Layer Experiments, Sep-Nov 2012 and May-Jun 2013
 - Co-PI, National Science Foundation (NSF) Integrated Characterization of Energy, Clouds, Atmospheric State, and Precipitation at Summit (ICECAPS), May 2010-Aug 2018
 - PI, ARM Radiative Heating in Underexplored Bands Campaign (RHUBC-II), Aug-Oct 2009
 - Co-I, ARM Routine AVP CLOUD Optical Radiative Observations (RACORO), Jan-Jun 2009
 - Co-I, ARM Indirect and Semi-Direct Aerosol Campaign (ISDAC), Apr 2008
 - Co-I, ARM Convective and Orographic Precipitation Study (COPS), Apr-Dec 2007
 - PI, ARM Radiative Heating in Underexplored Bands Campaign (RHUBC-I), Feb-Mar 2007
 - PI, PNNL Lexington-A Campaign to Investigate Solar Scattering and Emission in 3-5 μm band, 2005
 - Co-I, ARM Aerosol Lidar Validation Experiment (ALIVE), 2005
 - Co-I, ARM Mixed-Phase Arctic Cloud Experiment (M-PACE), 2004
 - Co-I, ARM Water Vapor Experiments (WVIOPs) in 1997, 1999, 2000
- Scientific Meeting Organization and Leadership
 - Chair, Gordon Research Conference on Radiation and Climate, 2017
 - Member of the ARM / ASR Science and Infrastructure Steering Committee; as such, I have helped organize the annual ARM Science Team meeting in 2007 – 2009 and the annual ASR Science Team meeting in 2010 – present
 - Chair, Workshop on Far-Infrared Remote Sensing, 2011
 - Session chair, 8th International Symposium on Tropospheric Profiling, 2009
 - Session chair, AMS 3rd Symposium on Lidar Atmospheric Applications, 2007
 - Session chair, 7th International Symposium on Tropospheric Profiling, 2006
 - Session organizer, AMS 2nd Symposium on Lidar Atmospheric Applications, 2005
 - General Chair, Optical Society of America (OSA) Hyperspectral Imaging and Sounding of the Environment Topical Meeting, 2005

(f) Former Graduate Students and Post-doctoral Students

- Andrew Dzambo, University of Oklahoma, MS 2015
Climatology of RHice distributions in cirrus clouds by synoptic regime
- Nils Küchler, University of Cologne, MS 2015
Characterization and improvement of absolute calibration techniques for microwave radiometers
- Dr. Veronique Meunier, McGill University, PhD 2013
Performance and information content in tomographic retrievals of water vapor from MWRs
- Nathan Anderson, University of Oklahoma, MS 2014
Vertical velocity turbulence profiles measured by two horizontally separated Doppler lidars
- Stephen Castleberry, University of Oklahoma, MS 2014
Evaluation of a microwave radiometer thermodynamic retrieval algorithm
- Dr. Subhashree Mishra, University of Oklahoma, Post-doc 2011-2013
Aerosol and water vapor analysis at the ARM Darwin Site using Raman lidar
- Dr. Dhashani Bopege, University of Oklahoma, Post-doc 2012-2013
Characterizing the Absolute Solar Transmission Interferometer during RHUBC-II
- W. Greg Blumberg, University of Oklahoma, MS 2013
Developing a Statistical Thermodynamic Retrieval for Ground-based Infrared Spectrometers
- Alexander Zwink, University of Oklahoma, MS 2013
Radiative flux divergence of different Arctic cloud types
- Jordan Guernsey, University of Oklahoma, MS 2012

- An examination of the vertical structure of cold fronts and associated prefrontal features
- Dr. Sean Crowell, University of Oklahoma, Post-doc 2011-2012
Using OSSEs to evaluate the utility of ground-based profilers on NWP simulations
- Dr. Aronne Merrelli, University of Wisconsin – Madison; Ph.D. 2012
The atmospheric information content of the Earth's far infrared spectrum
- Nate Miller, University of Wisconsin – Madison, M.S. 2012
Microwave radiometer observations of surface based inversions above the Greenland ice sheet
- Dr. Tim Wagner, University of Wisconsin – Madison; Ph.D. 2011
A method for retrieving cumulus entrainment rate from ground-based remote sensors
- Erik Janzon, University of Wisconsin – Madison, M.S. 2011
Data assimilation study for a national network of boundary layer thermodynamic profilers
- Dr. Subsashree Mishra, University of Nevada Reno, Ph.D. 2011 (external committee member)
Importance of ice cloud particle size distribution on climate model simulations
- Dr. Payal Mehta, Imperial College, London; Ph.D. graduated 2010 (external committee member)
Radiative properties of dust in the thermal infrared

(g) Peer-Reviewed Publications

- Accepted or Submitted

138. Dzambo, A.M., and **D.D. Turner**, 2016: Characterizing relative humidity with respect to ice in midlatitude cirrus clouds as a function of atmospheric state. *J. Geophys. Res.*, submitted.
137. **Turner, D.D.**, and R.G. Ellingson, 2016: Introduction. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.
136. Sisterson, D.L., R.A. Peppler, T.S. Cress, P.J. Lamb, and **D.D. Turner**, 2016: The ARM Southern Great Plains (SGP) site. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.
135. Kuechler, N., **D.D. Turner**, U. Loehnert, and S. Crewell, 2016: Calibrating ground-based microwave radiometers: Accuracy and repetition frequency. *Radio Sci.*, accepted.
134. Uttal, T., and 53 coauthors (including **D.D. Turner**), 2016: International Arctic systems for observing the atmosphere (IASOA): An international polar year legacy consortium. *Bull. Amer. Meteor. Soc.*, submitted.
133. Mlawer, E.J., and **D.D. Turner**, 2016: Spectral radiation measurements and analysis in the ARM program. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.
132. Ackerman, T.P., T.S. Cress, W. Ferrell, J.H. Mather, and **D.D. Turner**, 2016: The programmatic maturation of the ARM program. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.
131. Mather, J.H., **D.D. Turner**, and T.P. Ackerman, 2016: The scientific maturation of the ARM program. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.
130. Shupe, M.D., J.M. Comstock, **D.D. Turner**, and G.G. Mace, 2016: Cloud property retrievals in the ARM program. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.
129. **Turner, D.D.**, E.J. Mlawer, and H.E. Revercomb, 2016: Water vapor observations in the ARM program. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.
128. **Turner, D.D.**, J.E.M. Goldsmith, and R.A. Ferrare, 2016: Development and applications of the ARM Raman lidar. *The Atmospheric Radiation Measurement Program: The First 20 Years*, Meteor. Monograph, 57, Amer. Meteor. Soc., pp range, accepted.

- Published Papers (30 of the 127 below are as first author)
h-index from scholar.google.com is 39

127. Pettersen, C., R. Bennartz, M.S. Kulie, A.J. Merrelli, M.D. Shupe, and **D.D. Turner**, 2016: Microwave

- signatures of ice hydrometeors from ground-based observations above Summit, Greenland. *Atmos. Chem. Phys.*, 16, 4743-4756, doi:10.5194/acp-16-4743-2016.
126. Dzambo, A.M., **D.D. Turner**, and E.J. Mlawer, 2016: Evaluation of two Vaisala RS92 radiosonde solar radiative dry bias correction algorithms. *Atmos. Meas. Techniq.*, 9, 1613-1626, doi:10.5194/amt-0-1613-2016.
 125. Wulfmeyer, V., A. Behrendt, Z. Sorbjan, **D.D. Turner**, and R.M. Hardesty, 2016: Determination of convective boundary layer entrainment fluxes, dissipation rates, and molecular destruction of variances: Theoretical description and a strategy for its confirmation with a novel lidar system synergy. *J. Atmos. Sci.*, 73, 667-692, doi:10.1175/JAS-D-14-0392.1.
 124. Van Tricht, K., S. Lhermitte, J.T.M. Lenaerts, I.V. Gorodetskaya, T. L'Ecuyer, B. Noel, M.R. van den Broeke, D.D. Turner, and N.P.M Lipzig, 2016: Clouds enhance Greenland ice sheet meltwater runoff. *Nature Comm.*, 7, 10266, 1-9, doi:10.1038/ncomms10266.
 123. **Turner, D.D.**, S. Kneifel, and M.P. Cadeddu, 2016: An improved liquid water absorption model at microwave frequencies for supercooled liquid water clouds. *J. Atmos. Oceanic Technol.*, 33, 33-44, doi:10.1175/JTECH-D-0074.1.
 122. Wulfmeyer, V., R.M. Hardesty, **D.D. Turner**, A. Behrendt, M. Cadeddu, P. DiGirolamo, P. Schluessel, J. van Baelen, and F. Zus, 2015: A review of the remote sensing of lower-tropospheric thermodynamic profiles and its indispensable role for understanding and simulation of water and energy cycles. *Rev. Geophys.*, 53, 819-895, doi:10.1002/2014RG000476.
 121. Thorsen, T.J., Q. Fu, R.K. Newsom, **D.D. Turner**, and J.M. Comstock, 2015: Automated retrieval of cloud and aerosol properties from the ARM Raman lidar. Part 1: Feature detection. *J. Atmos. Oceanic Technol.*, 32, 1977-1998, doi:10.1175/JTECH-D-14-00150.1.
 120. Blumberg, W.G., **D.D. Turner**, U. Löhnert, and S. Castleberry, 2015: Ground-based temperature and humidity profiling using spectral infrared and microwave observations. Part 2: Actual retrieval performance in clear sky and cloudy conditions. *J. Appl. Meteor. Clim.*, 54, 2305-2319, doi:10.1175/JAMC-D-0005.1.
 119. Klein, P., T.A. Bonin, J.F. Newman, **D.D. Turner**, P.B. Chilson, C.E. Wainwright, W.G. Blumberg, S. Mishra, M. Carney, E.P. Jacobsen, and R.K. Newsom, 2015: LABLE: A multi-institutional, student-led, atmospheric boundary layer experiment. *Bull. Amer. Meteo Soc.*, 96, 1743-1764, doi:10.1175/BAMS-D-13-00267.1.
 118. Miller, N.B., M.D. Shupe, C.J. Cox, V.P. Walden, **D.D. Turner**, and K. Steffen, 2015: Cloud radiative forcing at Summit, Greenlan. *J. Climate*, 28, 6267-6280, doi:10.1175/JCLI-D-15-0076.1
 117. Sanders, R., S. Crewell, R. Gelaro, P.J. Minnett, V.-H. Peuch, J. Schmetz, **D.D. Turner**, and C. Velden, 2015: Observations for global to convective scale models. *Seemless Prediction of the Earth System: From Minutes to Months*, G. Brunet, S. Jones, and P.M. Ruti, Eds. World Meteorological Organization, 15-36, WMO-No.1156, ISBN 978-92-63-11156-2, Geneva.
 116. Vogelmann, A.M, A.M. Fridlind, T. Toto, S. Endo, W. Lin, J. Wang, S. Feng, Y. Zhang, **D.D. Turner**, Y. Liu, Z. Li, S. Xie, A.S. Ackerman, M. Zhang, and M. Khairoutdinov, 2015: RACORO continental boundary layer cloud investigations. Part 1: Case study development and ensemble large-scale forcings. *J. Geophys. Res.*, 120, 5962-5992, doi:10.1002/2014JD022713.
 115. Shupe, M.D., **D.D. Turner**, A.B. Zwink, M.M. Thieman, M.J. Mlawer, and T.R. Shippert, 2015: Deriving Arctic cloud microphysics at Barrow, Alaska: Algorithms, results, and radiative closure. *J. Appl. Meteor. Clim.*, 54, 1675-1689, doi:10.1175/JAMC-D-15-0054.1.
 114. Meunier, V., **D.D. Turner**, and P. Kollias, 2015: On the challenges of tomography retrievals of a 2D water vapor field using ground-based microwave radiometers: An observation system simulation experiment. *J. Atmos. Oceanic Technol.*, 32, 116-130, doi:10.1175/JTECH-D-00194.1.
 113. McNicholas, C., and **D.D. Turner**, 2014: Characterizing the convective boundary layer turbulence with a high spectral resolution lidar. *J. Geophys. Res.*, 119, 12910-12927, doi:10.1002/2014JD021867.
 112. **Turner, D.D.**, V. Wulfmeyer, L.K. Berg, and J.H. Schween, 2014: Water vapor turbulence profiles in stationary continental convective mixed layers. *J. Geophys. Res.*, 119, 11151-11165, doi:10.1002/2014JD022202.
 111. **Turner, D.D.**, R.A. Ferrare, V. Wulfmeyer, and A.J. Scarino, 2014: Aircraft evaluation of ground-based Raman lidar water vapor turbulence profiles in convective mixed layers. *J. Atmos. Oceanic Technol.*, 31, 1078-1088, doi:10.1175/JTECH-D-13-00075-1
 110. Van Tricht, K., I.V. Gorodetskaya, S. Lhermitte, **D.D. Turner**, J.H. Schween, and N.P.M van Lipzig, 2014: An improved algorithm for polar cloud-base detection by ceilometer over the ice sheets. *Atmos. Meas. Technol.*, 7, 1153-1167, doi:10.5194/amt-7-1153-2014

109. Mishra, S., D.M. Mitchell, **D.D. Turner**, and R.P. Lawson, 2014: Parameterization of ice fall speeds in mid-latitude cirrus: Results from SPartICus. *J. Geophys. Res.*, 119, 3857-3876, doi:10.1002/2013JD020602
108. Kneifel, S., S. Redl, E. Orlandi, U. Loehnert, M.P. Cadeddu, **D.D. Turner**, and M.-T. Chen, 2014: Absorption properties of supercooled liquid water between 31 and 225 GHz: Evaluation of absorption models using ground-based observations. *J. Appl. Met. Clim.*, 53, 1028-1045, doi:10.1175/JAMC-D-13-0214.1
107. Cox, C.J., **D.D. Turner**, P.M. Rowe, M.D. Shupe, and V.P. Walden, 2014: Cloud microphysical properties retrieved from downwelling infrared radiance measurements made at Eureka, Nunavut, Canada (2006-09). *J. Appl. Meteor. Clim.*, 53, 772-791, doi:10.1175/JAMC-D-13-0113.1
106. **Turner, D.D.**, and U. Loehnert, 2014: Information content and uncertainties in thermodynamic profiles and liquid cloud properties retrieved from the ground-based Atmospheric Emitted Radiance Interferometer (AERI). *J. Appl. Meteor. Clim.*, 53, 752-771, doi:10.1175/JAMC-D-13-0126.1
105. Paine, S.N., **D.D. Turner**, and N. Kuechler, 2014: Understanding thermal drift in liquid nitrogen loads used for radiometric calibration in the field. *J. Atmos. Oceanic Technol.*, 31, 647-655, doi:10.1175/JTECH-D-13-00171.1
104. Paine, S.N., and **D.D. Turner**, 2013: Processing and calibration of submillimeter Fourier Transform radiometer spectra from the RHUBC-II campaign. *IEEE Trans. Geosci. Remote Sens.*, 51, 5187-5198, doi:10.1109/TGRS.2012.2231869
103. Wendisch, M., P. Pilewskie, B. Bohn, A. Buckholtz, S. Crewell, C. Harlow, E. Jaekel, K.S. Schmidt, R. Shetter, J. Taylor, **D.D. Turner**, and M. Zoeger, 2013: Atmospheric radiation measurements, *Airborne Measurements for Environmental Research: Methods and Instruments*, M. Wendisch and J.-L. Brenguier, Eds., Wiley, 343-412, ISBN:978-3-527-40996-9
102. Maschwitz, G., U. Loehnert, S. Crewell, T. Rose, and **D.D. Turner**, 2013: Investigation of ground-based microwave radiometer calibration techniques at 530 hPa. *Atmos. Meas. Technol.*, 6, 2641-2658, doi:10.5194/amt-6-2641-2013
101. Marin, J.C., D. Pozo, E.J. Mlawer, **D.D. Turner**, and M. Cure, 2013: Dynamics of local circulations in mountainous terrain during the RHUBC-II project. *Monthly Wea. Rev.*, 141, 3641-3656, doi:10.1175/MWR-D-12-00245.1
100. Cadeddu, M.P., J.C. Liljegren, and **D.D. Turner**, 2013: The Atmospheric Radiation Measurement (ARM) program network of microwave radiometers: Instrumentation, data, and retrievals. *Atmos. Meas. Tech.*, 6, 2359-2372, doi:10.5194/amt-6-2359-2013
99. Thorsen, T.J., Q. Fu, J.M. Comstock, C. Sivaraman, M.A. Vaughn, D.M. Winker, and **D.D. Turner**, 2013: Macrophysical properties of tropical cirrus clouds from the CALIPSO satellite and from ground-based micropulse and Raman lidars. *J. Geophys. Res.*, 118, 1-12, doi:10.1002/jgrd.50691
98. Newsom, R.K., **D.D. Turner**, and J.E.M. Goldsmith, 2013: Long-term evaluation of temperature profiles measured by an operational Raman lidar. *J. Atmos. Oceanic Technol.*, 30, 1616-1634, doi:10.1175/JTECH-D-12-00138.1
97. Wagner, T.J., **D.D. Turner**, L.K. Berg, and S.K. Krueger, 2013: Ground-based remote retrievals of cumulus entrainment rates. *J. Atmos. Oceanic Technol.*, 30, 1460-1471, doi:10.1175/JTECH-D-12-00187.1
96. Sakai, T., D.N. Whiteman, F. Russo, **D.D. Turner**, I. Veselovskii, S.H. Melfi, T. Nagai, and Y. Mano, 2013: Liquid water cloud measurements using the Raman lidar technique: Current understanding and future research needs. *J. Atmos. Oceanic Technol.*, 30, 1337-1353, doi:10.1175/JTECH-D-12-00099.1
95. Bennartz, R., M.D. Shupe, **D.D. Turner**, V.P. Walden, K. Steffen, C.J. Cox, M.S. Kulie, N.B. Miller, and C. Pettersen, 2013: July 2012 Greenland melt extent enhanced by low-level liquid clouds. *Nature*, 496, 83-86, doi:10.1038/nature12002.
94. Shupe, M.D., **D.D. Turner**, V.P. Walden, R. Bennartz, M.P. Cadeddu, B.B. Castellani, C.J. Cox, D.R. Hudak, M.S. Kulie, N.B. Miller, R.R. Neely III, and W.D. Neff, 2013: High and dry: New observations of tropospheric and cloud properties above the Greenland ice sheet. *Bull. Amer. Meteo. Soc.*, 94, 169-186, doi:10.1175/BAMS-D-11-00249.1.
93. Miller, N.B., **D.D. Turner**, R. Bennartz, M.D. Shupe, M.S. Kulie, M.P. Cadeddu, and V.P. Walden, 2013: Surface-based inversions above central Greenland. *J. Geophys. Res.*, 118, 1-12, doi:10.1029/2012JD018867.
92. **Turner, D.D.**, P.J. Gero, and D.C. Tobin, 2012: The far-infrared: Focusing on a relatively underexplored portion of the electromagnetic spectrum. *Bull. Amer. Meteo. Soc.*, 93, ES103-ES104, doi:10.1175/BAMS-D-11-00007.1.
91. Vogelmann, A.M., G.M. McFarquhar, J.A. Ogren, **D.D. Turner**, J.M. Comstock, G. Feingold, C.N. Long,

- H.H. Jonsson, A. Bucholtz, D.R. Collins, G.S. Diskin, H. Gerber, R.P. Lawson, R.K. Woods, E. Andrews, H.-J. Yang, J.C. Chiu, D. Hartsock, J.M. Hubbe, C. Lo, A. Marshak, J.W. Monroe, S.A. McFarlane, B. Schmid, J.M. Tomlinson, and T. Toto, 2012: RACORO extended-term aircraft observations of boundary layer clouds. *Bull. Amer. Meteor. Soc.*, 93, 861-878, doi:10.1175/BAMS-D-11-00189.1.
90. Zhao, C., S. Xie, S.A. Klein, A. Protat, M.D. Shupe, S.A. McFarlane, J.M. Comstock, J. Delanoe, M. Deng, M. Dunn, R.J. Hogan, D. Huang, M.P. Jensen, G.G. Mace, R. McCoy, E.J. O'Connor, **D.D. Turner**, and Z. Wang, 2012: Towards understanding of differences in current cloud retrievals of ARM ground-based measurements. *J. Geophys. Res.*, 117, D10206, doi:10.1029/2011JD016792.
89. Hardesty, M. and R. Hoff, Eds. R. Hoff, M. Hardesty, F. Carr, T. Weckwerth, S. Koch, A. Benedetti, S. Crewell, N. Cimini, **D. Turner**, W. Feltz, B. Demoz, V. Wulfmeyer, D. Sisterson, T. Ackerman, F. Fabry, and K. Knupp, 2012: Thermodynamic profiling technologies workshop report to the National Science Foundation and the National Weather Service. NCAR/TN-488+STR, 80pp. Available online at <http://nldr.library.ucar.edu/repository/collections/TECH-NOTE-000-000-000-853>.
88. **Turner, D.D.**, E.J. Mlawer, G. Bianchini, M.P. Cadeddu, S. Crewell, J.S. Delamere, R.O. Knuteson, G. Maschwitz, M. Mlynczak, S. Paine, L. Palchetti, and D.C. Tobin, 2012: Ground-based high spectral resolution observations of the entire terrestrial spectrum under extremely dry conditions. *Geophys. Res. Lett.*, 39, L10801, doi:10.1029/2012GL051542.
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